



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

28 MAR 2005

Applicant's or agent's file reference 027830-4489		<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/US 03/31494		International filing date (day/month/year) 03.10.2003	Priority date (day/month/year) 04.10.2002
International Patent Classification (IPC) or both national classification and IPC B60N2/235			
Applicant JOHNSON CONTROLS TECHNOLOGY COMPANY et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of    sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I    <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II   <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability.</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V   <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand 28.04.2004		Date of completion of this report 19.01.2005	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Pétiaud, A Telephone No. +49 89 2399-6088 	

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/US 03/1494**

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-16 as originally filed

**Claims, Numbers**

1-18 as originally filed

**Drawings, Sheets**

1/8-8/8 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. **PCT/US 03/31494**

---

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-18
	No: Claims	
Inventive step (IS)	Yes: Claims	4, 5, 7-18
	No: Claims	1-3, 6
Industrial applicability (IA)	Yes: Claims	1-18
	No: Claims	

2. Citations and explanations

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/US 03/31494

**A. Re V**

**1. Claim 1**

- 1.1 Document US4035021 (D1), which is considered to represent the most relevant state of the art, discloses (cf. figures 1 and 2) a recliner mechanism from which the subject-matter of claim 1 differs in that the proximal end of the first pawl member is rotatably connected to the proximal end of the second pawl member.
- 1.2 The problem to be solved by the present invention may therefore be regarded as providing a positioning of the axis of rotation of the round sector and of both the pawl members which allows proper engagement of the pawls' teeth on the round sector's teeth. Indeed, if the positioning of these elements as described in D1 is not precise enough, one or both of them will not fulfill their role and the recliner will not be able to cope with efforts applied to it, but a precise positioning requires precise manufacturing, thus a high cost.
- 1.3 It is known from US6230867 (D2) to use two pawls mounted on the same rotation axis to interact with one toothed round sector, which solves the mentioned problem.
- 1.4 The skilled person would therefore regard it as a normal option to include this feature in the recliner mechanism described in document D1 in order to solve the problem posed.
- 1.5 The solution proposed in claim 1 of the present application can thus not be considered as involving an inventive step (Article 33(3) PCT).

**2. Claims 2, 3 and 6**

Claims 2, 3 and 6 do not appear to include features which would imply an inventive step over the prior art.

These claims thus fail to meet the requirements of Article 33(3) PCT.

**3. Claims 4 and 5**

The identical additional features of dependant claims 4 and 5 appear to be new and to involve an inventive step over the prior art, as they allow a greater toothed angular sector of the pawls to be used, and require a smaller clearance of the pawls from the round sector.

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

---

International application No. PCT/US 03/31494

**4. Claim 7**

The additional features of dependant claims 7 appear to be new and to involve an inventive step over the prior art, as they allow a greater movement of the pawls for a given movement of the actuating members (cam pin members).

**5. Claims 8-15 and 17-18**

Claims 8-15 and 17-18 are dependent on claim 7 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**6. Claim 16**

Claim 16 includes the additional features of claim 7 and thus also meet the requirements of the PCT with respect to novelty and inventive step.

**B. Further objections**

**7. Claim 16**

Claim 16 comprises all the features of claim 1 and is therefore not appropriately formulated as a claim dependent on the latter (Rule 6.4 PCT).

**8. Prior art**

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.